

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: LANEY et al.

Application No.: 10/643,421

Filing Date: 8/19/2003

For: **CREATING AN OPAQUE
GRAPHICAL USER INTERFACE
WINDOW WHEN A DISPLAY
UNIT IS IN AN OFF STATE**

) Confirmation No.: 4529
) Group Art Unit: 2173
) Examiner: Kieu D. Vu
) **RE-SUBMITTED APPEAL BRIEF**
) Attorney Docket No.: P17352
) **PTO Customer Number 28062**
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Sir:

In accordance with the Notice of Appeal filed June 13, 2007 and Notification of Non-Compliant Appeal Brief mailed November 16, 2007, Appellants hereby re-submit an appeal to the Board of Patent Appeals and Interferences from the decision of the Examiner in the Final Office Action mailed April 5, 2007 (the “Final Office Action”) rejecting claims 1-16 and 19-26.

REAL PARTY IN INTEREST

The present application is assigned to INTEL CORPORATION, 2200 Mission College Blvd, Santa Clara, CA 95052.

RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known to Applicants or Applicants' legal representative which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal. The present application has not been assigned to any other party.

STATUS OF CLAIMS

Claims 17-18 have been canceled.

Claims 1-16 and 19-26 are being appealed.

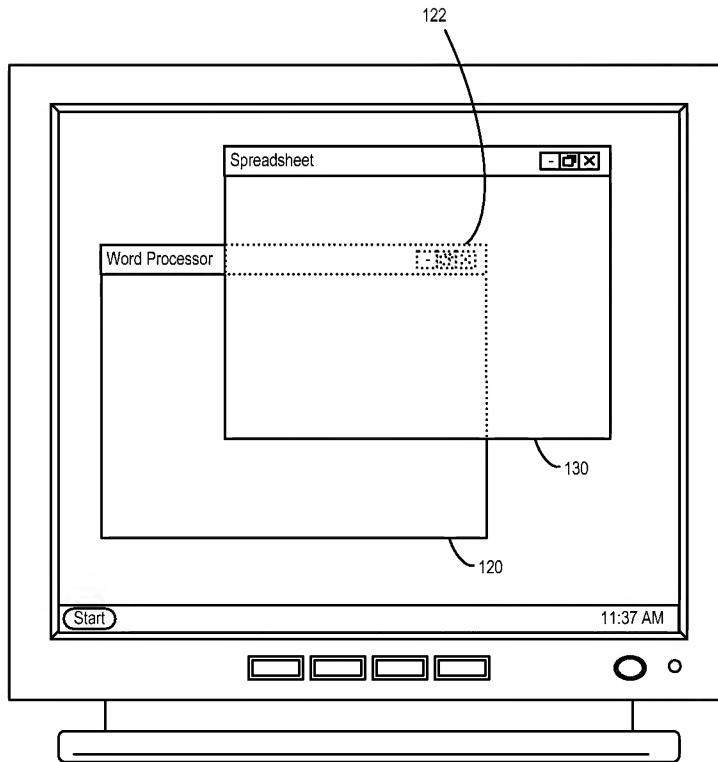
STATUS OF AMENDMENTS

No Amendment After Final Rejection has been filed.

SUMMARY OF THE CLAIMED SUBJECT MATTER

Claim 1

Some embodiments of the present invention are directed to an Operating System (OS) that uses Graphical User Interface (GUI) windows. For example, FIG. 2 of the present application illustrates a GUI having a spreadsheet window 130 displayed on top of a word processor window 120. Moreover, the spreadsheet window 130 is transparent, such that a faint image of a portion 122 of the word processor window 120 can be seen through the spreadsheet window. Page 3, lines 15 to 27.



Note that the calculations required to support such transparent displays can be intensive and power-consuming. Page 4, lines 5 to 9.

Claim 1 is directed to a method wherein it is determined that a display unit has “transitioned from a higher power state to a power off state.” For example, a user might have turned off his or her CRT or LCD computer monitor. Page 5, lines 25 to 27.

Moreover, it is arranged “for an opaque graphical user interface window to be created in a graphics memory unit in response to the determination.” For example, a non-transparent window might be created by the OS when the user turns off his or her monitor (e.g., as illustrated in FIG. 3 of the application as filed). As a result, the amount of power used by the system may be reduced (e.g., because the system no longer needs to support calculations for any transparent windows under the newly created opaque window). Page 5, lines 3 to 11.

Claim 3

Claim 3 recites that “a plurality of windows co-exist in the graphical user interface and the opaque window is created such that it would be displayed from the graphics memory unit on

top of other windows.” For example, FIG. 2 of the present application illustrates a GUI having a spreadsheet window 130 displayed on top of a word processor window 120. Moreover, the spreadsheet window 130 is transparent, such that a faint image of a portion 122 of the word processor window 120 can be seen through the spreadsheet window. Page 3, lines 15 to 27.

Claim 5

Claim 5 recites “receiving from a user a request to turn off the display unit.” For example, a user might have turned off his or her CRT or LCD computer monitor. Page 5, lines 25 to 27.

Claim 10

Claim 10 is directed to an apparatus including an input to receive an indication that a display unit has transitioned from a higher power state to a power off state. For example, the input might receive an indication that a user might has turned off his or her CRT or LCD computer monitor. Page 5, lines 25 to 27.

In addition, the apparatus of claim 10 includes “a device to arrange for an opaque graphical user interface window to be created in a graphics memory unit in response to the received indication.” For example, FIG. 7 illustrates a system 700 according to such an embodiment wherein a non-transparent window might be created by when the user turns off the display unit 720 (e.g., as illustrated in FIG. 3 of the application as filed). As a result, the amount of power used by the system may be reduced (e.g., because the system no longer needs to support calculations for any transparent windows). Page 5, lines 3 to 11.

Claim 12

Claim 12 recites that “a plurality of windows co-exist in the graphical user interface and the opaque window is created such that it would be displayed from the graphics memory unit on top of other windows.” For example, FIG. 2 of the present application illustrates a GUI having a spreadsheet window 130 displayed on top of a word processor window 120. Moreover, the

spreadsheet window 130 is transparent, such that a faint image of a portion 122 of the word processor window 120 can be seen through the spreadsheet window. Page 3, lines 15 to 27.

Claim 16

Claim 16 is directed to an apparatus comprising a storage medium having stored thereon instructions that when executed by a processor result in the display first and second windows of a GUI OS on a display unit, wherein the second window is displayed over the first window (e.g., as illustrated in FIG. 2 of the application as filed). Moreover, calculations are performed to make the second window semi-transparent, such that a faded image of the first window is visible to a user through the second window (such as portion 122 illustrated in FIG. 2). Responsive to a transition of the display unit from a power on state to a power off state, it is arranged for a third window of the OS to be automatically created, wherein “the third window is opaque and occupies substantially all of a graphical user interface area such that neither the first nor second window would be visible to a user and said calculations are no longer performed.” Such an opaque, non-transparent window is illustrated, for example, in FIG. 3 of the present application and is described in the specification at page 5, lines 3 to 24.

Claim 20

Claim 20 recites “receiving from a user a request to turn off the display unit.” For example, a user might have turned off his or her CRT or LCD computer monitor. Page 5, lines 25 to 27.

Claim 24

Claim 24 is directed to a computer system including a Random Access Memory unit to store graphical information and a processor to execute an operating system associated with GUI windows. In addition, claim 24 recites that “an opaque window is created in the RAM unit responsive to a determination that a display unit is to be in an off state.” For example, FIG. 7 illustrates a system 700 according to such an embodiment wherein a non-transparent window might be created by a CPU 712 (and stored in a graphics RAM unit 716) when the user turns off

a display unit 720 (e.g., a non-transparent window as illustrated in FIG. 3 of the application as filed). As a result, the amount of power used by the system may be reduced (e.g., because the system no longer needs to support calculations for any transparent windows). Page 5, lines 3 to 11.

Claim 26

Claim 26 recites that “a plurality of windows co-exist in the graphical user interface and the opaque window is created such that it would be displayed from the random access memory unit on top of other windows.” For example, FIG. 2 of the present application illustrates a GUI having a spreadsheet window 130 displayed on top of a word processor window 120. Moreover, the spreadsheet window 130 is transparent, such that a faint image of a portion 122 of the word processor window 120 can be seen through the spreadsheet window. Page 3, lines 15 to 27.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 24-25 are rejected under 35 USC 102 as being anticipated by US Patent No. 6,504,534 (“Takase”).

Claim 26 is rejected under 35 USC 103 as being unpatentable over Takase and US Publication No. 20030005193 (“Seroussi”).

Claims 1-2, 4, 6, 8-11, and 13-15 are rejected under 35 USC 103 as being unpatentable over Takase and US Publication No. 20010020928 (“Yanagisawa”).

Claims 3 and 12 are rejected under 35 USC 103 as being unpatentable over Takase, Yanagisawa, and Seroussi.

Claim 5 is rejected under 35 USC 103 as being unpatentable over Takase, Yanagisawa, and US Patent No. 6,961,034 (“Kusanagi”).

Claims 16, 19, and 21-23 are rejected under 35 USC 103 as being unpatentable over US Patent No. 5,805,163 (“Bagnas”) and Yanagisawa.

Claim 20 is rejected under 35 USC 103 as being unpatentable over Bagnas, Yanagisawa, and Kusanagi.

ARGUMENTS

Claims 24-25

Claims 24-25 are rejected under 35 USC 102 as being anticipated by US Patent No. 6,504,534 (“Takase”).

Claim 24 recites a RAM unit to store graphical information and a processor to execute an OS associated with GUI windows. Moreover, “an opaque window is created in the RAM unit responsive to a determination that a display unit is to be in an off state.”

Takase discloses that a blank “screen saver” can be provided to prevent damage to a computer monitor. For example, a blank screen saver might be displayed after a period of inactivity. Moreover, when the blank screen server is displayed for a pre-determined amount of time (e.g., three minutes), power to the computer monitor can be automatically turned off. Col. 10, lines 39-53.

Thus, Takase does not disclose creating an opaque window “responsive to a determination that a display unit is to be in an off state” as is recited in claim 24. That is, it is not determined that a user has turned off his or her monitor. Nor is an opaque GUI window created in response to such a determination. Instead, Takase discloses:

- displaying a screen saver on a computer monitor after a period of inactivity, and
- automatically turning off power to the computer monitor in response to the display of the screen saver.

Nor do any of the other references cited in the Office Action, taken alone or in combination, disclose creating an opaque GUI window responsive to a determination that a display unit is off. Moreover, such a feature would not be obvious in view of Takase and/or any of the other references. The purpose of the screen saver is to prevent damage that might result if a computer monitor were to display a static image for an extended period of time. Thus, the screen saver of Takase would serve no purpose if it were only to be displayed when the monitor was turned off.

As a result, Appellants respectfully suggest that the rejection of claims 24-25 is improper.

Claim 26

Claim 26 is rejected under 35 USC 103 as being unpatentable over Takase and US Publication No. 20030005193 (“Seroussi”). In addition to the elements of claim 24 from which it depends, claim 26 recites that “a plurality of windows co-exist in the GUI and the opaque window is created such that it would be displayed from the RAM unit on top of other windows.”

Seroussi merely teaches that a screen save can be created to cover a display to enhance security (e.g., when it is detected that a user has left a workstation). See, for example, paragraph [0022] of Seroussi.

Neither Seroussi nor Takase, however, disclose or suggest creating such a window “responsive to a determination that a display unit is to be in an off state.” Nor would such a feature even make sense in the system of Seroussi. For example, creating an opaque window when the screen is turned would in no way enhance security (since the window wouldn’t be seen on the powered-off monitor).

Thus, Appellants respectfully suggest that the rejection of claim 26 is improper for at least the reasons set forth above with respect to claim 24.

Claims 1-2, 4, 6, 8-11, and 13-15

Claims 1-2, 4, 6, 8-11, and 13-15 are rejected under 35 USC 103 as being unpatentable over Takase and US Publication No. 20010020928 (“Yanagisawa”).

Claim 1 recites “determining that a display unit has transitioned from a higher power state to a power off state.” Moreover, it is arranged “for an opaque graphical user interface window to be created in a graphics memory unit in response to the determination.” As explained above, Takase discloses automatically powering off a display monitor after a screen saver is displayed for a pre-period of time. It does not disclose creating an opaque GUI window “in response” to a determination that a display unit has transitioned to a power off state.

Yanagisawa teaches that an LCD display can be electrically forced to display a black image via a video switch (e.g., a video switch such as the one illustrated in the signal control

circuit 6 of FIG. 1 of Yanagisawa). Thus, Yanagisawa does not disclose or suggest creating an opaque GUI window in response to a determination that a display unit has powered off.

Moreover, in rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A *prima facie* case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to arrive at the claimed invention.

The teaching or suggestion to make the claimed combination must be found in the prior art, and not based on the Applicants' disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). The fact that references can potentially be modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP 2143.01; Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH, 45 USPQ 2d 1977, 1981-82 (Fed. Cir. 1998) (the question to be asked is "whether the prior art contains a suggestion or motivation to combine references").

According to the Final Office Action, one would have been motivated to modify Takase "to prevent the turbulence of images in [an] LCD." Final Office Action, page 4. Appellants respectfully disagree and respectfully suggest that this falls far short of a motivation to modify Takase in specific ways that would result in the particular invention as recited in claim 1. Note that creating an opaque GUI window after power is removed from a display unit would presumably have no effect on LCD turbulence (since the unit is already off when the window is created).

The absence of a real motivation in the prior art (and the lack of a convincing line of reasoning) to perform the particular method as recited in the pending claims indicates that the Examiner has simply recognized a benefit provided by the present invention, and then used that benefit as a motivation to combine the references – the essence of impermissible hindsight reconstruction.

Because there is no teaching or suggestion to modify the references in this way, a *prima facie* case of obviousness has not been established. The rejection of these claims should be reversed.

Claims 3 and 12

Claims 3 and 12 are rejected under 35 USC 103 as being unpatentable over Takase, Yanagisawa, and Seroussi. In addition to the elements of the claims from which they depend, these claims recite that “a plurality of windows co-exist in the GUI and the opaque window is created such that it would be displayed from the RAM unit on top of other windows.”

Seroussi merely teaches that a screen save can be created to cover a display to enhance security (e.g., when it is detected that a user has left a workstation). See, for example, paragraph [0022] of Seroussi.

None of the references, including Seroussi, disclose or suggest creating such a window “responsive to a determination that a display unit is to be in an off state.” Nor would such a feature even make sense in the system of Seroussi. For example, creating an opaque window when the screen is turned would in no way enhance security (since the window wouldn’t be seen on the powered-off monitor).

Thus, Appellants respectfully suggest that the rejection of claims 3 and 12 is improper for at least the reasons set forth above.

Claim 5

Claim 5 is rejected under 35 USC 103 as being unpatentable over Takase, Yanagisawa, and US Patent No. 6,961,034 (“Kusanagi”). As best understood by Appellants, Kusanagi merely teaches that a user may power off an LCD display. This, of course, does not suggest creating an opaque GUI window in response to the user powering off the LCD display. Moreover, Appellants respectfully do not understand why one of ordinary skill in the art would combine these references “to provide the user with the ability to control the display of opaque window (black window).” Final Office Action, page 8. Note that user would never see the opaque

window created in claim 5 (because the display is off) and thus, there would be no reason to give him or her control over the window.

Claims 16, 19, and 21-23

Claims 16, 19, and 21-23 are rejected under 35 USC 103 as being unpatentable over US Patent No. 5,805,163 (“Bagnas”) and Yanagisawa.

As admitted in the Final Office Action, Bagnas does not disclose or suggest determining that a display unit is powered off and, response to the transition, arranging for a third window (opaque) of the OS to be automatically created. Final Office Action, page 8.

Yanagisawa is cited to supply this missing element. Appellants respectfully suggest, however, that Yanagisawa does not teach creating a GUI window at all. Instead, Yanagisawa teaches that an LCD display can be electrically forced to display a black image via a video switch (e.g., a video switch such as the one illustrated in the signal control circuit 6 of FIG. 1 of Yanagisawa). Thus, none of the references disclose or suggest creating an opaque GUI window in response to a determination that a display unit has powered off.

Claim 20

Claim 20 is rejected under 35 USC 103 as being unpatentable over Bagnas, Yanagisawa, and Kusanagi. As best understood by Appellants, Kusanagi merely teaches that a user may power off an LCD display. This, of course, does not suggest creating an opaque GUI window in response to the user powering off the LCD display. Moreover, Appellants respectfully do not understand why one of ordinary skill in the art would combine these references “to provide the user with the ability to control the display of opaque window (black window).” Final Office Action, page 10. Note that user would never see the opaque window created in claim 20 (because the display is off) and thus, there would be no reason to give him or her control over the window.

CONCLUSION

Appellants respectfully suggest that rejections of claims 1-16 and 19-26 are improper and request that the rejections be reversed. If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned.

Respectfully submitted,

November 21, 2007
Date

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Appendix A – Claims

Appendix B – Evidence

Appendix C - Related Proceedings

APPENDIX A - CLAIMS

This is a complete copy of the claims involved in the appeal:

1. A method, comprising:

determining that a display unit has transitioned from a higher power state to a power off state; and

arranging for an opaque graphical user interface window to be created in a graphics memory unit in response to the determination.

2. The method of claim 1, wherein the opaque window occupies substantially all of a graphical user interface area.

3. The method of claim 1, wherein a plurality of windows co-exist in the graphical user interface and the opaque window is created such that it would be displayed from the graphics memory unit on top of other windows.

4. The method of claim 1, wherein the power off state is associated with a system's low-power state.

5. The method of claim 1, wherein said determining comprises:

receiving from a user a request to turn off the display unit.

6. The method of claim 1, wherein said determining is based on an automatic power transition of the display unit after a period of relative inactivity.

7. The method of claim 1, further comprising:

determining that the display unit has transitioned back to the higher power state; and
arranging for the opaque window to be removed from the graphics memory unit.

8. The method of claim 1, wherein the display unit is associated with at least one of: (i) a desktop personal computer; (ii) a mobile system, (iii) a workstation, (iv) a server, (v) a set top box, or (vi) a game system.

9. The method of claim 1, wherein at least one of said determining and said arranging is associated with at least one of: (i) a software application, (ii) a hardware device, (iii) an operating system, (iv) a driver, or (v) a basic input/output system.

10. An apparatus, comprising:

an input to receive an indication that a display unit has transitioned from a higher power state to a power off state; and

a device to arrange for an opaque graphical user interface window to be created in a graphics memory unit in response to the received indication.

11. The apparatus of claim 10, wherein the opaque window occupies substantially all of a graphical user interface area.

12. The apparatus of claim 10, wherein a plurality of windows co-exist in the graphical user interface and the opaque window is created such that it would be displayed from the graphics memory unit on top of other windows.

13. The apparatus of claim 10, wherein the power off state is associated with a system's low-power state.

14. The apparatus of claim 10, further comprising:

wherein the device is to further arrange for the opaque window to be removed when the display unit transitions back to the higher power state.

15. The apparatus of claim 10, wherein the device is associated with at least one of: (i) a desktop personal computer; (ii) a mobile system, (iii) a workstation, (iv) a server, (v) a set top box, or (vi) a game system.

16. An apparatus, comprising:

a storage medium having stored thereon instructions that when executed by a machine result in the following:

displaying a first window of a graphical user interface operating system on a display unit,

displaying a second window of the operating system on the display unit, wherein the second window is displayed over the first window,

performing calculations to make the second window semi-transparent, such that a faded image of the first window is visible to a user through the second window,

determining that the display unit has transitioned from a power on state to a power off state, and

responsive to the transition, arranging for a third window of the operating system to be automatically created, wherein the third window is opaque and occupies substantially all of a graphical user interface area such that neither the first nor second window would be visible to a user and said calculations are no longer performed.

17-18. (canceled)

19. The apparatus of claim 16, wherein the off state is associated with a system's low-power state.

20. The apparatus of claim 16, wherein said determining comprises:
receiving from a user a request to turn off the display unit.

21. The apparatus of claim 16, wherein execution of the instructions further results in the following:

determining that the display unit has transitioned back to the power on state;
arranging for the third window to be removed; and
resuming said calculations to make the second window semi-transparent.

22. The apparatus of claim 16, wherein the display unit is associated with at least one of:
(i) a desktop personal computer; (ii) a mobile system, (iii) a workstation, (iv) a server, (v) a set top box, or (vi) a game system.

23. The apparatus of claim 16, wherein at least one of said determining and said arranging is associated with at least one of: (i) a software application, (ii) a hardware device, (iii) [an] the operating system, (iv) a driver, or (v) a basic input/output system.

24. A computer system, comprising:
a random access memory unit to store graphical information;
a processor to execute an operating system associated with graphical user interface windows, wherein an opaque window is created in the random access memory unit responsive to a determination that a display unit is to be in an off state.

25. The computer system of claim 24, wherein the opaque window occupies substantially all of a graphical user interface area.
26. The computer system of claim 24, wherein a plurality of windows co-exist in the graphical user interface and the opaque window is created such that it would be displayed from the random access memory unit on top of other windows.

APPENDIX B - EVIDENCE

No evidence is submitted herewith (*i.e.*, this appendix is empty).

APPENDIX C - RELATED PROCEEDINGS

No other appeals or interferences are known to Applicants or Applicants' legal representative which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal. The present application has not been assigned to any other party.

Therefore, there are no copies of decisions rendered by a court or the Board to attach (*i.e.*, this appendix is empty).